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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/025,903	12/26/2001	Kyo Ho Moon	8733.542.00	7621

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EXAMINER

PARKER, JOHN M

ART UNIT	PAPER NUMBER
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2823

DATE MAILED: 10/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/025,903	Applicant(s) MOON, KYO HO	
	Examiner John M. Parker	Art Unit 2823	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Specification

Previous objections to the specification are now withdrawn

Drawings

Previous objections to the drawings are now withdrawn

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-15 are rejected under 35 U.S.C. 102(b) as being anticipated by applicant's admitted prior art (AAPA).

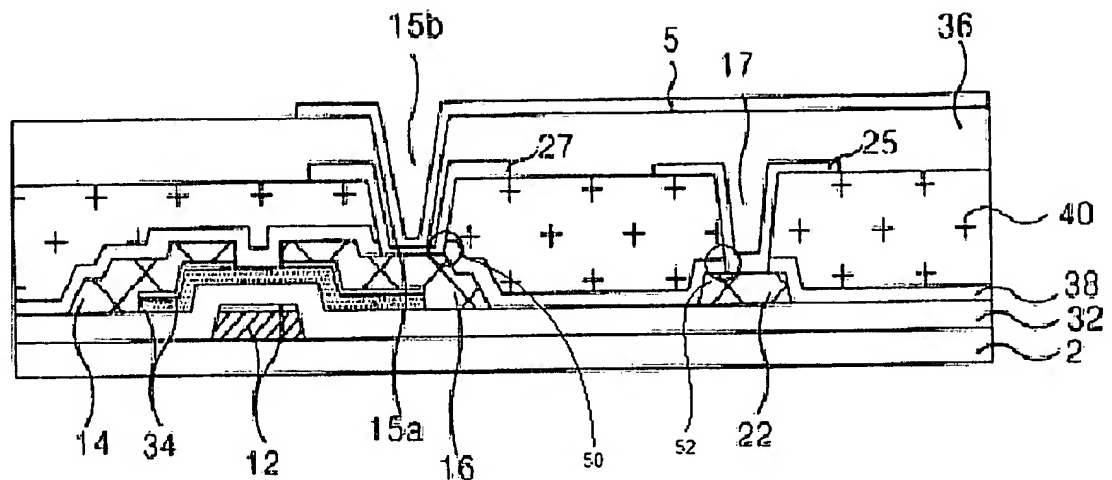


Fig. 2

Regarding claim 1, Fig. 2 of AAPA teaches an X-ray detecting device, comprising:

a thin film transistor having a gate electrode [12], a source electrode [14] and a drain electrode [16] provided on a substrate;

a first protective film covering the thin film transistor [38];

a first drain contact hole passing through the first protective film [50];

a second protective film provided on the first protective film [40];

a second drain contact hole passing through the second protective film centering around the drain contact hole [15b]; and

a transparent electrode connected to the drain electrode via the first and second drain contact holes [27, pg. 5, paragraph [0012] confirms it is indeed transparent].

Regarding claim 2, AAPA discloses the X-ray detecting device according to claim 1, wherein the second drain contact hole has a smaller width than the first drain contact hole [pg. 6, paragraph [0015], during the contact hole formation

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it is disclosed that 38 becomes undercut, thereby being wider than the second contact hole formation in the same sense as the instant inventions first contact hole is wider than the second contact hole].

Regarding claim 3, Fig. 2 of AAPA teaches the X-ray detecting device according to claim 1, further comprising: a ground line having the lower electrode of a storage capacitor on the substrate [22];

a first storage contact hole passing through the first protective film covering the ground line [52];

a second storage contact hole passing through the second protective film centering around the first storage contact hole [17];

and a storage electrode electrically connected to the ground line via the first and second storage contact holes [25].

Regarding claim 4, AAPA discloses the X-ray detecting device according to claim 3, wherein the first protective film is made from an inorganic insulating material [pg. 6, paragraph [0015]].

Regarding claim 5, AAPA teaches the X-ray detecting device according to claim 3, wherein the second protective film is made from an organic insulating material [pg. 6, paragraph [0015]].

Regarding claim 6, Fig. 2 of AAPA discloses the X-ray detecting device according to claim 5, further comprising: a third protective film provided on the second protective film [36]; and

a pixel electrode electrically connected to the drain electrode via a contact hole passing through the third protective film [5].

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Regarding claim 7, Fig. 2 of AAPA teaches the X-ray detecting device according to claim 3, further comprising: a third protective film provided on the second protective film [36]; and

a pixel electrode electrically connected to the drain electrode via a contact hole passing through the third protective film [5].

Regarding claim 8, AAPA discloses the X-ray detecting device according to claim 3, wherein the second storage contact hole has a smaller width than the first storage contact hole [pg. 6, paragraph [0015], during the contact hole formation it is disclosed that 38 becomes undercut, thereby being wider than the second contact hole formation in the same sense as the instant inventions first contact hole is wider than the second contact hole].

Regarding claim 9, Fig. 2 of AAPA teaches a method of fabricating an X-ray detecting device, comprising the steps of:

providing a gate electrode on a substrate [12];

providing a gate insulating film on the substrate [32];

providing a semiconductor layer on the gate insulating film [34];

providing a source electrode [14] and a drain electrode [16] on the gate insulating film;

providing a first protective film on the gate insulating film [38];

providing a first drain contact hole passing through the first protective film [50];

providing a second protective film on the first protective film [40];

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providing a second drain contact hole passing through the second protective film centering around the first drain contact hole [15b]; and

providing a transparent electrode on the second protective film [27, pg. 5, paragraph [0012] confirms it is indeed transparent].

Regarding claim 10, AAPA discloses the method according to claim 9, wherein the first drain contact hole has a larger width than the second drain contact hole [pg. 6, paragraph [0015], during the contact hole formation it is disclosed that 38 becomes undercut, thereby being wider than the second contact hole formation in the same sense as the instant inventions first contact hole is wider than the second contact hole].

Regarding claim 11, AAPA teaches the method according to claim 9, further comprising the steps of:

forming a ground line simultaneously with the source and drain electrodes [pg. 5, paragraph [0011]];

forming a first storage contact hole passing through the first protective film covering the ground line [fig. 2, 52];

forming a second storage contact hole passing through the second protective film centering around the first storage contact hole [fig. 2, 17]; and

forming a transparent electrode on the second protective film [fig. 2, 25, pg. 5, paragraph [0012] confirms it is indeed transparent].

Regarding claim 12, AAPA discloses the method according to claim 11, further comprising the steps of:

forming a third protective film on the second protective film [fig. 2, 36]; and

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forming a pixel electrode on the third protective film [fig. 2, 5].

Regarding claim 13, AAPA teaches the method according to claim 11, wherein the first storage contact hole has a larger width than the second storage contact hole [pg. 6, paragraph [0015], during the contact hole formation it is disclosed that 38 becomes undercut, thereby being wider than the second contact hole formation in the same sense as the instant inventions first contact hole is wider than the second contact hole].

Regarding claim 14, AAPA discloses the method according to claim 11, wherein the first protective film is made from an inorganic insulating material [pg. 6, paragraph [0015]].

Regarding claim 15, AAPA teaches the method according to claim 11, wherein the second protective film is made from an organic insulating material [pg. 6, paragraph [0015]].

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The additional cited art teaches similar structures and methods to those instantly claimed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John M. Parker whose telephone number is 571-272-8794. The examiner can normally be reached on Monday - Friday 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew S. Smith can be reached on 571-272-1907. The


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fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John M. Parker



George Fourson
Primary Examiner